



[6450-01-P]

**DEPARTMENT OF ENERGY**

**10 CFR Part 430**

**[EERE-2016-BT-TP-0037]**

**RIN 1904-AD74**

**Energy Conservation Program: Test Procedures for Integrated Light-Emitting Diode Lamps**

**AGENCY:** Office of Energy Efficiency and Renewable Energy, Department of Energy.

**ACTION:** Final rule.

**SUMMARY:** On July 1, 2016, the U.S. Department of Energy (DOE) published a final rule adopting a test procedure for integrated light-emitting diode (LED) lamps (hereafter referred to as “LED lamps”) to support the implementation of labeling provisions by the Federal Trade Commission, as well as the general service lamps rulemaking, which includes LED lamps. This final rule amends the LED lamps test procedure by allowing for time to failure measurements to be taken at elevated temperatures consistent with the ENERGY STAR program requirements.

**DATES:** The effective date of this rule is **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

**ADDRESSES:** The docket, which includes *Federal Register* notices, comments, and other supporting documents/materials, is available for review at [www.regulations.gov](http://www.regulations.gov). All documents in the docket are listed in the [www.regulations.gov](http://www.regulations.gov) index. However, some documents listed in the index, such as those containing information that is exempt from public disclosure, may not be publicly available.

A link to the docket web page can be found at

*[https://www1.eere.energy.gov/buildings/appliance\\_standards/standards.aspx?productid=19](https://www1.eere.energy.gov/buildings/appliance_standards/standards.aspx?productid=19)*.

The docket web page contains simple instructions on how to access all documents, including public comments, in the docket.

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## **I. Authority and Background**

Title III of the Energy Policy and Conservation Act of 1975 (42 U.S.C. 6291, *et seq.*; “EPCA” or “the Act”), among other things, authorizes DOE to regulate the energy efficiency of a number of consumer products and industrial equipment.<sup>1</sup> Title III, Part B<sup>2</sup> of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency. These consumer products include integrated light-emitting diode (LED) lamps, the subject of this document.

Under EPCA, the energy conservation program consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of the Act include definitions (42 U.S.C. 6291),

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<sup>1</sup> All references to EPCA refer to the statute as amended through the EPS Improvement Act of 2017, Public Law 115–115 (January 12, 2018).

<sup>2</sup> For editorial reasons, upon codification in the U.S. Code, Part B was redesignated Part A.

energy conservation standards (42 U.S.C. 6295), test procedures (42 U.S.C. 6293), labeling provisions (42 U.S.C. 6294), and the authority to require information and reports from manufacturers (42 U.S.C. 6296). The testing requirements consist of test procedures that manufacturers of covered products must use as the basis for (1) certifying to DOE that their products comply with the applicable energy conservation standards adopted under EPCA (42 U.S.C. 6295(s)), and (2) making representations about the energy use or efficiency of those products (42 U.S.C. 6293(c)). Similarly, DOE must use these test procedures to determine whether the products comply with any relevant standards promulgated under EPCA. (42 U.S.C. 6295(s))

Federal energy efficiency requirements for covered products established under EPCA generally supersede State laws and regulations concerning energy conservation testing, labeling, and standards. (See 42 U.S.C. 6297) DOE may, however, grant waivers of Federal preemption for particular State laws or regulations, in accordance with the procedures and other provisions of EPCA. (42 U.S.C. 6297(d))

Under 42 U.S.C. 6293, EPCA sets forth the criteria and procedures DOE must follow when prescribing or amending test procedures for covered products. EPCA provides, in relevant part, that any test procedures prescribed or amended under this section shall be reasonably designed to produce test results which measure energy efficiency, energy use or estimated annual operating cost of a covered product during a representative average use cycle or period of use and shall not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3))

In addition, if DOE determines that a test procedure amendment is warranted, it must publish a proposed test procedure and offer the public an opportunity to present oral and written

comments on it. (42 U.S.C. 6293(b)(2)) EPCA also requires that, at least once every 7 years, DOE review test procedures for each type of covered product, including integrated LED lamps, to determine whether amended test procedures would more accurately or fully comply with the requirements for the test procedures to not be unduly burdensome to conduct and be reasonably designed to produce test results that reflect energy efficiency, energy use, and estimated operating costs during a representative average use cycle or period of use. (42 U.S.C. 6293(b)(1)(A)) If the Secretary determines, on his own behalf or in response to a petition by any interested person, that a test procedure should be prescribed or amended, the Secretary shall promptly publish in the *Federal Register* proposed test procedures and afford interested persons an opportunity to present oral and written data, views, and arguments with respect to such procedures. The comment period on a proposed rule to amend a test procedure shall be at least 60 days and may not exceed 270 days. In prescribing or amending a test procedure, the Secretary shall take into account such information as the Secretary determines relevant to such procedure, including technological developments relating to energy use or energy efficiency of the type (or class) of covered products involved. (42 U.S.C. 6293(b)(2)) If DOE determines that test procedure revisions are not appropriate, DOE must publish notice in the *Federal Register* of its determination not to amend the test procedure. (42 U.S.C. 6293(b)(1)(A))

DOE published a final rule in the *Federal Register* on July 1, 2016 (hereafter the “July 2016 LED TP final rule”), which adopted test procedures for integrated LED lamps in appendix BB to subpart B of 10 CFR part 430 to support the implementation of labeling provisions by the Federal Trade Commission, as well as the general service lamps rulemaking, a category of lamps that includes LED lamps. 81 FR 43403. On November 4, 2016, DOE published a notice of proposed rulemaking (NPR) (hereafter the “November 2016 LED TP NPR”) in the *Federal*

*Register* proposing an amendment to the integrated LED lamp test procedures to allow for time to failure measurements to be taken at elevated temperatures. 81 FR 76877. In this final rule, DOE adopts that amendment and responds to comments received on the November 2016 LED TP NOPR.

## **II. Synopsis of the Final Rule**

Based on stakeholder feedback since the publication of the July 2016 LED TP final rule, DOE proposed in the November 2016 LED TP NOPR to allow time to failure measurements collected for DOE's LED lamps test procedure to be taken at elevated temperatures. In this final rule, DOE amends the test procedure for integrated LED lamps as proposed in the NOPR without any further modification.

The effective date for the amended test procedures adopted in this final rule will be 30 days after publication of this document in the *Federal Register*. Representations of energy use or energy efficiency must be based on testing in accordance with the amended test procedures beginning 180 days after the publication of this final rule. DOE notes that the amended test procedure allows measurements to be taken at elevated temperatures but does not require it.

## **III. Discussion**

### **A. Scope of Applicability**

EPCA defines an LED as a p-n junction<sup>3</sup> solid-state device, the radiated output of which, either in the infrared region, visible region, or ultraviolet region, is a function of the physical construction, material used, and exciting current of the device. (42 U.S.C. 6291(30)(CC)) In the

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<sup>3</sup> P-n junction is the boundary between p-type and n-type material in a semiconductor device, such as LEDs. P-n junctions are diodes, active sites where current can flow readily in one direction but not in the other direction.

July 2016 LED TP final rule, DOE stated that the rulemaking applied to LED lamps that met DOE's adopted definition of an integrated LED lamp, which was based on the term as defined by ANSI/IES<sup>4</sup> RP-16-2010, "Nomenclature and Definitions for Illuminating Engineering," and adopted as follows:

*Integrated light-emitting diode lamp* means an integrated LED lamp as defined in ANSI/IES RP-16.

The ANSI/IES standard defines an integrated LED lamp as an integrated assembly that comprises LED packages (components) or LED arrays (modules) (collectively referred to as an LED source), an LED driver, an ANSI standard base, and other optical, thermal, mechanical and electrical components (such as phosphor layers, insulating materials, fasteners to hold components within the lamp together, and electrical wiring). The LED lamp is intended to connect directly to a branch circuit through a corresponding ANSI standard socket. 81 FR 43405.

#### B. Amended Approach for Determining Lifetime

In the July 2016 LED TP final rule, DOE adopted test procedures, located in appendix BB to subpart B of 10 CFR part 430, for measuring and projecting time to failure of LED lamps based on lumen maintenance data. The adopted test procedures were largely based on the industry standards IES LM-84-14, "Approved Method: Measuring Luminous Flux and Color Maintenance of LED Lamps, Light Engines, and Luminaires," and IES TM-28-14, "Projecting Long-Term Luminous Flux Maintenance of LED Lamps and Luminaires," for the applicable lumen maintenance measurements and time to failure projection methods, with some

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<sup>4</sup> American National Standards Institute/Illuminating Engineering Society of North America

modifications. 81 FR 43427-43428 (July 1, 2016). IES LM-84-14 provides a method for lumen maintenance measurement of integrated LED lamps and specifies the operational and environmental conditions during testing such as operating cycle, ambient temperature, airflow, and orientation. Lumen maintenance is the measure of lumen output after an elapsed operating time, expressed as a percentage of the initial lumen output. IES TM-28-14 provides methods for projecting the lumen maintenance of integrated LED lamps depending on the available data and test duration. The provided methods include projecting time to failure using multiple lumen maintenance measurements collected over a period of time, rather than a single measurement at the end of the test duration. 81 FR 43409 (July 1, 2016). DOE's test procedure adopted in the July 2016 LED TP final rule requires that the projection calculation be completed for each individual LED lamp and the projected time to failure values then be used to calculate the lifetime of the sample using the prescribed methods. 81 FR 43414. The lumen maintenance measurements used in the projection are specified to be taken at an ambient temperature of 25 °C  $\pm$  5 °C.

After the publication of the July 2016 LED TP final rule, the National Electrical Manufacturers Association (NEMA) requested that DOE approve the use of test results from the Elevated Temperature Life Test<sup>5</sup> contained in the ENERGY STAR Program Requirements Product Specification for Lamps (Light Bulbs) Eligibility Criteria Version 2.0 (hereafter "ENERGY STAR Lamps Specification V2.0")<sup>6</sup> in place of the test method for measuring lumen maintenance and time to failure in DOE's LED lamps test procedure because it would reduce test

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<sup>5</sup> The ENERGY STAR Elevated Temperature Life Test Method can be found at <https://www.energystar.gov/sites/default/files/ENERGY%20STAR%20Elevated%20Temperature%20Life%20Test%20Method.pdf>.

<sup>6</sup> "ENERGY STAR Program Requirements: Product Specification for Lamps (Light Bulbs) Version 2.0." U.S. Environmental Protection Agency, February 2016.



burden. NEMA asserted that because the test conditions from the Elevated Temperature Life Test are more stringent, the test results, if different, would be more conservative than if the lamps were tested according to the current DOE LED lamps test procedure. 81 FR 76878-76879 (November 4, 2016). In response to this request, DOE proposed in the November 2016 LED TP NOPR to amend the integrated LED lamps test procedure to allow for time to failure testing to be conducted at elevated temperatures.

As noted in the November 2016 LED TP NOPR, DOE compared the current DOE LED lamps test procedure and the methods contained in the ENERGY STAR Elevated Temperature Life Test and determined that the operating temperature test conditions specified in the ENERGY STAR Elevated Temperature Life Test will more negatively affect performance values than those prescribed in DOE's LED lamps test procedure since the Elevated Temperature Life Test requires testing of LED lamps at higher ambient temperatures. Specifically, the Elevated Temperature Life Test requires directional lamps with rated wattages less than or equal to 20 W to be tested at  $45^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ; directional lamps with rated wattages greater than 20 W to be tested at  $55^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ; and all other omnidirectional and decorative lamps to be tested at  $45^{\circ}\text{C} \pm 5^{\circ}\text{C}$ . DOE's test procedure requires operating temperature to be maintained at  $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$ . 81 FR at 76879 (November 4, 2016).

In addition to a difference in ambient temperature during lumen maintenance testing, DOE noted in the November 2016 LED TP NOPR that ENERGY STAR's and DOE's test procedures also differ in how to determine the value of lifetime. ENERGY STAR's test procedure provides a method to confirm a manufacturer-declared lifetime value. It requires manufacturers to meet or exceed minimum lumen maintenance values at a specific test duration

to be able to claim a certain maximum lifetime. For example, for a lamp to be certified with a lifetime of 25,000 hours, that lamp must achieve a minimum lumen maintenance of 91.8 percent after 6,000 hours of operation. DOE's test procedure for determining lifetime depends on the time to failure of individual units, which is determined by taking lumen maintenance measurements at multiple intervals and then calculating the time to failure. For example, after 6,000 hours of testing, manufacturers can use the specified method to project a lamp's time to failure value to be up to 36,000 hours. Lifetime is then determined by calculating the median time to failure of the sample (calculated as the arithmetic mean of the time to failure of the two middle sample units when the numbers are sorted in value order). This is consistent with the statutory definition of lifetime, which is described as the length of operating time of a statistically large group of lamps between first use and failure of 50 percent of the group. 42 U.S.C. 6291(30)(P).

To maintain consistency with the statutory definition of lifetime, in the November 2016 LED TP NOPR, DOE did not propose to allow for an entire substitution of the ENERGY STAR lifetime test procedure in place of DOE's time to failure measurements. Instead, DOE proposed to amend section 4.4.4 of appendix BB to allow time to failure testing to be conducted at elevated temperatures above the current requirement, which stipulates to maintain ambient operating temperature at  $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$ . Manufacturers would then have the flexibility to conduct the Elevated Temperature Life Test for ENERGY STAR, while also following the calculation method for DOE's LED lamps test procedure, and avoid test duplication. LED lamps are sensitive to changes in ambient temperature, generally performing less favorably at higher temperatures. DOE tentatively concluded that this proposed change would result in, if any difference, more conservative representations of lifetime. *Id.*

DOE received only one stakeholder comment pertaining to LED lamps and the proposed test procedure amendment. Intertek commented that they support the proposed amendment to the test procedure and added that testing at elevated temperature is more stringent than at normal ambient temperatures (*i.e.*, 25 °C). Intertek concluded that laboratory tests have confirmed this assessment and noted that elevated temperatures stress each of the lamp components in conditions that more accurately reflect the end-use environments of lamps intended for use in enclosed or recessed fixtures. (Intertek, No. 2 at p. 1) DOE appreciates the feedback confirming that testing at elevated temperatures results in more conservative estimates for lamp lifetime. DOE did not receive any other comments. Therefore, DOE is adopting the amendment to the integrated LED lamps test procedure as proposed in the November 2016 LED TP. Thus, DOE is amending section 4.4.4 of appendix BB to subpart B of 10 CFR part 430 to allow time to failure testing to be conducted at an ambient temperature of 25 °C  $\pm$  5 °C or at a manufacturer-selected temperature higher than 25 °C with the same  $\pm$  5 °C tolerance.

### C. Test Procedure Costs and Impact

EPCA requires that test procedures adopted by DOE not be unduly burdensome to conduct. In this document, DOE amends the existing test procedure for integrated LED lamps by allowing time to failure testing to be conducted at temperatures higher than ambient temperature. DOE has determined that this amendment would not be unduly burdensome for manufacturers to conduct and instead would decrease the test burden for many manufacturers that participate in the ENERGY STAR program.

The existing test procedure for integrated LED lamps, adopted in the July 2016 LED TP final rule, included a method to determine lifetime in support of Federal Trade Commission

(FTC) labeling requirements. As such, any integrated LED lamp that makes representations of lifetime must use DOE's test procedure to determine lifetime. Many manufacturers also participate in the ENERGY STAR program and certify models of integrated LED lamps as compliant with those voluntary requirements. The ENERGY STAR specification for lamps requires that models be tested for lifetime at elevated temperatures unless they are labeled 1) "not for use in totally enclosed luminaires" (or equivalent statement), and 2) "not for use in recessed luminaires" (or equivalent statement) on the lamp and lamp packaging.<sup>7</sup> There are 8,051 distinct models of LED lamps certified through the ENERGY STAR program. Of these, there are 1,816 models of LED lamps certified as meeting the criteria to be tested at ambient temperature. That means the remaining 6,235 models of LED lamps that are certified in ENERGY STAR must be tested at elevated temperatures.

As described in section III.B, DOE is amending the test procedure for integrated LED lamps to allow time to failure testing to be conducted at either ambient temperature or at a manufacturer-selected temperature higher than ambient temperature. The amendment does not require any integrated LED lamp model to be retested. Currently under the DOE requirements, representations of lifetime require the use of test values obtained at ambient temperature, which will still be permitted under the amendment adopted in this final rule. However, this amendment can reduce burden for manufacturers who also certify models in the ENERGY STAR program in categories that require the testing of lifetime to be at elevated temperatures. Rather than conduct two separate tests for lifetime – one at ambient temperature per DOE's test procedure and one at elevated temperature per ENERGY STAR's test procedure – they can now conduct only one test

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<sup>7</sup> ENERGY STAR's Specification for Lamps V2.1 is available here: [https://www.energystar.gov/sites/default/files/ENERGY%20STAR%20Lamps%20V2.1%20Final%20Specification\\_1.pdf](https://www.energystar.gov/sites/default/files/ENERGY%20STAR%20Lamps%20V2.1%20Final%20Specification_1.pdf).

at elevated temperature and use the test data to satisfy the requirements of both the mandatory Federal regulatory program and the voluntary ENERGY STAR program.

Because the market for integrated LED lamps is rapidly changing, DOE estimates, using information from lamp manufacturer interviews, that basic models of LED lamps are distributed in commerce for about two years before new models are introduced to take their place. While manufacturers must submit a report annually to certify a basic model's representation of lifetime, basic models do not need to be retested annually, unless required to support certification of a new, more efficient rating.<sup>8</sup> Because of the short time that basic models of LED lamps are distributed in commerce, DOE has determined that represented values for LED lamps are not revised during the two years they are distributed. Thus, DOE concludes that lifetime testing is conducted every two years for the number of basic models on the market, or every year for half the number of models on the market. In the July 2016 LED TP final rule, DOE estimated the cost of a lifetime test at a third-party lab to be \$7,880 per basic model. 81 FR 43404, 43422 (July 1, 2016). If all of the 6,235 models of integrated LED lamps certified in ENERGY STAR that require testing at elevated temperatures were to conduct only one lifetime test instead of two, DOE estimates that the net present value (NPV) of savings would be up to \$754 million at a 3 percent discount rate or up to \$311 million at a 7 percent discount rate.

**Table III.1 Integrated LED Lamp Costs or (Savings)**

	<b>Costs or (Savings)</b>	<b>Costs or (Savings)</b> <i>millions</i>
<b>One Time Costs or (Savings)</b>	\$0	\$0.00
<b>Annual Costs or (Savings)</b>	(\$23,321,650)	(\$23.32)
<b>NPV at 3%</b>	(\$754,745,955)	(\$754.75)
<b>NPV at 7%</b>	(\$311,370,494)	(\$311.37)

<sup>8</sup> See guidance issued by DOE at <https://www.regulations.gov/document?D=EERE-2016-BT-TP-0037-0004>

<b>Annualized Costs or (Savings) at 3%</b>	(\$22,642,379)	(\$22.64)
<b>Annualized Costs or (Savings) at 7%</b>	(\$21,795,935)	(\$21.80)

#### D. Effective and Compliance Dates

The effective date for the adopted test procedure amendment will be 30 days after publication of this final rule in the *Federal Register*. EPCA prescribes that all representations of energy efficiency and energy use, including those made on marketing materials and product labels, must be made in accordance with an amended test procedure, beginning 180 days after publication of the final rule in the *Federal Register*. (42 U.S.C. 6293(c)(2)) EPCA provides an allowance for individual manufacturers to petition DOE for an extension beyond the 180-day statutory period if the manufacturer may experience undue hardship in meeting the deadline. (42 U.S.C. 6293(c)(3)) To receive such an extension, petitions must be filed with DOE no later than 60 days before the end of the 180-day period and must detail how the manufacturer will experience undue hardship. (*Id.*)

## **IV. Procedural Issues and Regulatory Review**

### A. Review Under Executive Order 12866

The Office of Management and Budget (OMB) has determined that this test procedure rulemaking is not a “significant regulatory action” under section 3(f) of Executive Order 12866, Regulatory Planning and Review, 58 FR 51735 (Oct. 4, 1993). Accordingly, this action was not subject to review under the Executive Order by the Office of Information and Regulatory Affairs (OIRA) in the OMB.

## B. Review Under Executive Order 13771

On January 30, 2017, the President issued Executive Order 13771, “Reducing Regulation and Controlling Regulatory Costs.” The Executive Order stated the policy of the executive branch is to be prudent and financially responsible in the expenditure of funds, from both public and private sources. The Order stated that it is essential to manage the costs associated with the governmental imposition of private expenditures required to comply with Federal regulations. Consistent with Executive Order 13771, this final rule is estimated to result in cost savings. Assuming a 7 percent discount rate, the final rule yields annualized cost savings of approximately \$22.96 million (2016\$). Therefore, this rule is an Executive Order 13771 deregulatory action.

## C. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of a final regulatory flexibility analysis (FRFA) for any final rule where the agency was first required by law to publish a proposed rule for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by Executive Order 13272, “Proper Consideration of Small Entities in Agency Rulemaking,” 67 FR 53461 (August 16, 2002), DOE published procedures and policies on February 19, 2003 to ensure that the potential impacts of its rules on small entities are properly considered during the DOE rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel’s website:

<http://energy.gov/gc/office-general-counsel>. DOE certified in the November 2016 LED TP NOPR that the adopted test procedure amendment will not have a significant economic impact

on a substantial number of small entities, and the preparation of a FRFA is not warranted. The factual basis for this certification is discussed in the following paragraphs.

The Small Business Administration (SBA) considers a business entity to be a small business, if, together with its affiliates, it employs less than a threshold number of workers specified in 13 CFR part 121. These size standards and codes are established by the North American Industry Classification System (NAICS). Manufacturing of LED lamps is classified under NAICS 335110, “Electric Lamp Bulb and Part Manufacturing.” The SBA sets a threshold of 1,250 employees or less for an entity to be considered as a small business for this category.

To estimate the number of companies that could be small businesses that sell LED lamps covered by this rulemaking, DOE conducted a market survey using publicly available information. DOE’s research involved information from the Environmental Protection Agency’s ENERGY STAR Certified Light Bulbs Database,<sup>9</sup> previous rulemakings, individual company websites, SBA’s database, and market research tools (*e.g.*, Hoover’s<sup>10</sup> reports). DOE screened out companies that did not meet the definition of a “small business” or are completely foreign owned and operated. DOE identified approximately seven small businesses that maintain domestic production facilities for the integrated LED lamps covered by this rulemaking.

DOE notes that this final rule merely amends the existing LED test procedure in a way that will reduce test burden on manufacturers by providing the option of testing at elevated temperatures. The adopted amendment will reduce the instances in which two tests for lifetime must be conducted for the same lamp. In addition, the amendment is supported by industry,

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<sup>9</sup> ENERGY STAR Certified Light Bulbs Database, <https://www.energystar.gov/productfinder/product/certified-light-bulbs/results> (last accessed April 2, 2018).

<sup>10</sup> <http://hoovers.com/>.



including NEMA. Manufacturers that seek to test time to failure at elevated temperatures under the amendment are likely to have previously accounted for testing costs associated with the ENERGY STAR program as these measurements are required to be reported to ENERGY STAR if manufacturers certify the lamps as meeting the program requirements. For manufacturers who do not test products at elevated temperatures, this amendment presents no additional burden.

Based on the criteria outlined earlier and the reasons discussed in this section, DOE previously certified in the November 2016 LED TP NOPR that the amendment adopted in this final rule will not have a significant economic impact on a substantial number of small entities. The factual basis for this certification has not changed.

#### D. Review Under the Paperwork Reduction Act of 1995

Manufacturers of LED lamps must certify to DOE that their products comply with any applicable energy conservation standards. To certify compliance, manufacturers must first obtain test data for their products according to the DOE test procedures, including any amendments adopted for those test procedures. DOE has established regulations for the certification and recordkeeping requirements for all covered consumer products and commercial equipment, including LED lamps. (See generally 10 CFR part 429.) The collection-of-information requirement for the certification and recordkeeping is subject to review and approval by OMB under the Paperwork Reduction Act (PRA). This requirement has been approved by OMB under OMB control number 1910-1400. Public reporting burden for the certification is estimated to average 35 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Notwithstanding any other provision of the law, no person is required to respond to, nor must any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB control number.

#### E. Review Under the National Environmental Policy Act of 1969

In this final rule, DOE amends its test procedure for LED lamps. DOE has determined that this rule falls into a class of actions that are categorically excluded from review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*) and DOE's implementing regulations at 10 CFR part 1021. Specifically, this final rule amends the existing test procedure for integrated LED lamps without affecting the amount, quality or distribution of energy usage, and, therefore, will not result in any environmental impacts. Thus, this rulemaking is covered by Categorical Exclusion A5 under 10 CFR part 1021, subpart D, which applies to any rulemaking that interprets or amends an existing rule without changing the environmental effect of that rule. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

#### F. Review Under Executive Order 13132

Executive Order 13132, "Federalism," 64 FR 43255 (August 4, 1999), imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have Federalism implications. The Executive Order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive Order also requires agencies to have an accountable process to ensure meaningful and

timely input by State and local officials in the development of regulatory policies that have Federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735. DOE has examined this final rule and has determined that it will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the products that are the subject of this final rule. States can petition DOE for exemption from such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6297(d)) No further action is required by Executive Order 13132.

#### G. Review Under Executive Order 12988

Regarding the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, "Civil Justice Reform," 61 FR 4729 (Feb. 7, 1996), imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity, (2) write regulations to minimize litigation, (3) provide a clear legal standard for affected conduct rather than a general standard, and (4) promote simplification and burden reduction. Section 3(b) of Executive Order 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation (1) clearly specifies the preemptive effect, if any, (2) clearly specifies any effect on existing Federal law or regulation, (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction, (4) specifies the retroactive effect, if any, (5) adequately defines key terms, and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive

Order 12988 requires Executive agencies to review regulations in light of applicable standards in sections 3(a) and 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this final rule meets the relevant standards of Executive Order 12988.

#### H. Review Under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Public Law No. 104-4, sec. 201 (codified at 2 U.S.C. 1531). For a regulatory action resulting in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of \$100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)) The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed “significant intergovernmental mandate,” and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect small governments. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA. 62 FR 12820; also available at <http://energy.gov/gc/office-general-counsel>. DOE examined this final rule according to UMRA and its statement of policy and determined that the rule contains neither an intergovernmental mandate, nor a mandate that may result in the expenditure of \$100 million or more in any year, so these requirements do not apply.

#### I. Review Under the Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Public Law 105-277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. This final rule would not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

#### J. Review Under Executive Order 12630

DOE has determined, under Executive Order 12630, “Governmental Actions and Interference with Constitutionally Protected Property Rights” 53 FR 8859 (March 18, 1988), that this regulation will not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

#### K. Review Under Treasury and General Government Appropriations Act, 2001

Section 515 of the Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516 note) provides for agencies to review most disseminations of information to the public under guidelines established by each agency pursuant to general guidelines issued by OMB. OMB’s guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE’s guidelines were published at 67 FR 62446 (Oct. 7, 2002). DOE has reviewed this final rule under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

#### L. Review Under Executive Order 13211

Executive Order 13211, “Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use,” 66 FR 28355 (May 22, 2001), requires Federal agencies to

prepare and submit to OMB, a Statement of Energy Effects for any significant energy action. A “significant energy action” is defined as any action by an agency that promulgated or is expected to lead to promulgation of a final rule, and that (1) is a significant regulatory action under Executive Order 12866, or any successor order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (3) is designated by the Administrator of OIRA as a significant energy action. For any significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use if the regulation is implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

This regulatory action to amend the test procedure for measuring the lumen maintenance and time to failure of LED lamps is not a significant regulatory action under Executive Order 12866. Moreover, it will not have a significant adverse effect on the supply, distribution, or use of energy, nor has it been designated as a significant energy action by the Administrator of OIRA. Therefore, it is not a significant energy action, and, accordingly, DOE has not prepared a Statement of Energy Effects.

#### M. Review Under Section 32 of the Federal Energy Administration Act of 1974

Under section 301 of the Department of Energy Organization Act (Public Law 95–91; 42 U.S.C. 7101), DOE must comply with section 32 of the Federal Energy Administration Act of 1974, as amended by the Federal Energy Administration Authorization Act of 1977. (15 U.S.C. 788; FEAA) Section 32 essentially provides in relevant part that, where a proposed rule authorizes or requires use of commercial standards, the notice of proposed rulemaking must inform the public of the use and background of such standards. In addition, section 32(c)

requires DOE to consult with the Attorney General and the Chairman of the FTC concerning the impact of the commercial or industry standards on competition.

The amendment to the test procedures for LED lamps adopted in this final rule does not incorporate any new standards that would require compliance under section 32(b) of the FEAA.

#### N. Congressional Notification

As required by 5 U.S.C. 801, DOE will report to Congress on the promulgation of this rule before its effective date. The report will state that it has been determined that the rule is not a "major rule" as defined by 5 U.S.C. 804(2).

## **V. Approval of the Office of the Secretary**

The Secretary of Energy has approved publication of this final rule.

### **List of Subjects in 10 CFR part 430**

Administrative practice and procedure, Confidential business information, Energy conservation, Household appliances, Imports, Incorporation by reference, Intergovernmental relations, Small businesses.

Issued in Washington, DC, September 14, 2018.

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Cathy Tripodi  
Acting Assistant Secretary for Energy Efficiency  
Energy Efficiency and Renewable Energy



For the reasons stated in the preamble, DOE amends part 430 of Chapter II of Title 10, Code of Federal Regulations as set forth below:

## **PART 430--ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS**

1. The authority citation for part 430 continues to read as follows:

**Authority:** 42 U.S.C.6291–6309; 28 U.S.C. 2461 note.

2. Appendix BB to subpart B of part 430 is amended by revising the introductory note and second sentence of section 4.4.4 to read as follows:

**Appendix BB to Subpart B of Part 430—Uniform Test Method for Measuring the Input Power, Lumen Output, Lamp Efficacy, Correlated Color Temperature (CCT), Color Rendering Index (CRI), Power Factor, Time to Failure, and Standby Mode Power of Integrated Light-Emitting Diode (LED) Lamps**

Note: On or after [INSERT DATE 180 DAYS AFTER DATE OF PUBLICATION IN THE **FEDERAL REGISTER**], any representations made with respect to the energy use or efficiency of integrated light-emitting diode lamps must be made in accordance with the results of testing pursuant to this appendix.

\* \* \* \* \*

### *4. Active Mode Test Method to Measure Time to Failure*

\* \* \* \* \*

#### *4.4. Operating Conditions and Setup Between Lumen Output Measurements*

\* \* \* \* \*

4.4.4. \* \* \* Maintain the ambient temperature at  $25\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$  or at a manufacturer-selected temperature higher than  $25\text{ }^{\circ}\text{C}$  with the same  $\pm 5\text{ }^{\circ}\text{C}$  tolerance.

\* \* \* \* \*

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